REMARKS

Claims 1, 2, 4-16, 18-25, 27-31, 33-36, 38-42, and 44-81 are pending in the application prior to the entry of this amendment.

The Examiner rejects claims 1, 2, 6, 8, 9, 12, 14-16, 38, and 40-42 under 35 U.S.C. § 103(a) as being unpatentable over Interrante et al. (U.S. Patent No. 6,011,783) in view of Fraser (U.S. Patent No. 6,487,200) and further in view of Tendo (U.S. Patent No. 5,752,761).

The Examiner rejects claims 5, 7, 9, 11, 13, 18-21, 23, 25, 27-30, 33-36, 45-47, 49, 51, 52, 55, 57-61, 63, 64, 72, 74, 75, and 77-81 under 35 U.S.C. § 103(a) as being unpatentable over Interrante in view of Fraser and further in view of Tendo and further in view of Légaré.

The Examiner rejects claims 39, 70-71, and 76 under 35 U.S.C. § 103(a) as being unpatentable over Interrante in view of Fraser, further in view of Tendo, and further in view of Meek (U.S. Patent No. 5,745,564).

The Examiner rejects claims 4 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Interrante in view of Fraser, further in view of Tendo, and further in view of Tol et al. (U.S. Patent No. 4,918,685).

The Examiner rejects claim 53 under 35 U.S.C. § 103(a) as being unpatentable over Interrante in view of Fraser, further in view of Légaré, further in view of Tendo, and further in view of Meek.

The Examiner rejects claims 22, 31, and 65-69 under 35 U.S.C. § 103(a) as being unpatentable over Interrante in view of Fraser, further in view of Tendo, further in view of Légaré, and further in view of Suzuki (U.S. Patent No. 5,533,121).

The Examiner rejects claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Interrante in view of Fraser, further in view of Tendo, further in view of Légaré, and further in view of Younce et al. (U.S. Patent No. 5,274,705).

The Examiner rejects claims 44, 50, 56, 62 and 73 under 35 U.S.C. § 103(a) as being unpatentable over Interrante in view of Fraser, further in view of Tendo, further in view of Légaré, and further in view of Tol.

Applicant adds no new matter and requests reconsideration.

Claim Rejections Under § 103(a)

The Examiner rejects claims 1-81 under 35 U.S.C. § 103(a). Applicant respectfully traverses the Examiner's rejections.

Claim 1 recites *transmitting the excitation signal to the echo canceller*. Claims 20 and 38 recite a similar limitation. The Examiner alleges Interrante's control words and echo canceller 11 disclose the recited preamble portion of the excitation signal and echo canceller, respectively. Interrante, however, does not disclose transmitting any of the control words to echo canceller 11, as Interrante's microprocessor provides each control word to a corresponding register 21, 31, and 41. Interrante, therefore, does not anticipate claim 1, or claims 20, and 38, and their corresponding dependent claims.

Claim 1 recites *generating a packetized excitation signal including a preamble portion and a test portion*. Claims 20, 29, and 38 recite a similar limitation. Claim 9 recites *receiving a packetized excitation signal... including a preamble portion and a test portion*. Claims 23, 35, 38, and 45 recite a similar limitation. The Examiner alleges Interrante's control words and test data disclose the recited excitation signal. Interrante's microprocessor, however, provides test data to shift register 24 and control words to registers 21, 31, and 41, separately. Interrante, col. 3, lines 8-15, 31-32, and 61-63. Since Interrante's microprocessor does not provide, generate, or receive a signal that include *both preamble and test portions*, Interrante does not anticipate claim 1, or claims 9, 20, 23, 29, 35, 38, and 45, and their corresponding dependent claims.

Claim 35 recites *an echo canceller, comprising*

a receiver for receiving a packetized excitation signal from a network, the excitation signal ... including a preamble portion and a test portion and

a decoder for decoding the preamble portion.

The Examiner alleges Interrante's echo canceller 11 discloses the recited limitations. The Examiner, however, does not allege, nor can the Applicant ascertain at the time of this writing, where Interrante's echo canceller 11 discloses the recited receiver or decoder. Nowhere does Interrante disclose that its echo canceller 11 receives a packetized signal much less receive a packetized signal from a network and decode the preamble portion of the packetized signal. Applicant respectfully asks the Examiner to provide guidance.

Claim 29 recites *a transmitter for transmitting the excitation signal ... via a network*. Claims 1, 20, and 38 recite similar limitations. Claim 23 recites *signal receiving means for receiving ... [an] excitation signal transmitted over a network*. Claims 9 and 45 recite similar limitations. The Examiner alleges Interrante's microprocessor for providing control words

and test data to components of Interrante's monitoring circuit 10 discloses the recited transmitter and signal receiving means, respectively. According to the Examiner, although Interrante does not disclose the control words and test data being "transmitted through a network," Fraser discloses the ability of network devices to transmit and receive packets over a network. The Examiner further alleges "[i]t would have been obvious to one skilled in the art at the time of the invention to apply packet controlled diagnostic testing as taught by Fraser to the method taught by Interrante for the purpose of greatly simplifying the telephone system." Office Action, page 3. Even if Fraser taught controlling diagnostic testing of network devices by sending packets through a network, this combination would not have provided motivation for sending control words and test data from the Interrante's microprocessor to components of monitoring circuit 10 via a network since Interrante's microprocessor is local to monitoring circuit 10. Intermate, col. 4, lines 5-8, 19-23, and 50-54; col. 2, lines 35-42 and 51-54. In other words, since the microprocessor is located within monitoring circuit 10, it would be illogical for the microprocessor to send its control words and test data over a network just to be received by other components of monitoring circuit 10. Thus combining the references, as the Examiner suggests, is to no avail. Applicant therefore respectfully requests that this rejection be withdrawn and the pending claims be allowed to issue.

Claim 1 further recites *encoding the preamble portion with configuration information relating to the echo canceller*. According to the Examiner, Interrante's control words and corresponding timeslots disclose the recited preamble portion and configuration information, respectively. The Examiner alleges since each control word contains a timeslot that Interrante inherently discloses the recited encoding of the preamble portion with configuration information. Neither Interrante, nor Fraser, however, disclose the ability to *encode* any signal, or portion thereof, with configuration information relating to the echo canceller. Each control word, further, does not *contain* a timeslot as the Examiner asserts, since Interrante's control logic 23, 33, and 43 each utilize a corresponding control word to "*specify* a timeslot." Interrante, col. 3, lines 11-13, 31-33, and 63-66. Interrante's timeslots, further, are not configuration information relating to echo canceller 11, as they only dictate when test data is injected into data streams 13 or 14, or when echo-cancelled test data is extracted from data stream 15. Interrante, col. 3, lines 11-13, 31-33, and 63-66. Since Interrante's control words are not encoded with configuration information relating to an echo canceller, Interrante does not anticipate claim 1 or its corresponding dependent claims.

Claim 9 further recites *decoding the preamble portion after receiving the excitation signal from a network.* Claims 23, 35, and 45 recite similar limitations. The Examiner does not disclose, nor can the Applicant ascertain at the time of this writing, where any of the references disclose a decoder, or decoding means capable of decoding the preamble portion of the excitation signal. Since, as discussed above, Interrante does not disclose encoding the preamble portion of an excitation signal, Interrante also does not disclose decoding the preamble portion upon reception of the excitation signal. Interrante, therefore, does not anticipate claim 9, or claims 23, 35, and 45, and their corresponding dependent claims.

Claim 9 recites *controlling the echo canceller during testing responsive to the... preamble portion.* Claims 20, 29, and 38 recite similar limitations. The Examiner does not explicitly allege where Interrante's echo cancellation performance monitoring device 10 discloses controlling the echo canceller 11 responsive to the preamble portion. It appears from Interrante and the Examiner's related arguments that Interrante's injection unit 20, simulator unit 30, and extraction unit 40 utilize control words to control echo canceller 11. Interrante's injection unit 20, simulator unit 30, and extraction unit 40, however, do not *control* echo canceller 11, but alter the data entering the data stream 13 and 14 and extract data from data stream 15. In other words, echo canceller 11 performs the same function, canceling echoes, regardless of the input data, and thus Interrante does not disclose the recited controlling of the echo canceller. Interrante, therefore, does not anticipate claim 9, or claims 20, 29, and 38, and their corresponding dependent claims.

Claim 20 recites *a system for testing an echo canceller* including *generating a packetized excitation signal including a preamble portion and a test portion, wherein the preamble portion identifies a type of test.* Claims 13, 40, 41, 47, 55, and 71 recite similar limitations. The Examiner alleges Phase 1 of Légaré's method establishes "the desired mode of operation" for testing and measuring a network 100 that includes echo cancellers 118 and 120, and thus discloses the recited identification of the type of test to be performed by an echo canceller. Office Action, page 7; Légaré, col. 5, lines 50-55. Légaré, however, does not select the type of test to be performed on the network 100 by establishing the desired mode of operation, as calling device 102 and terminating device 104 exchange signals to determine the type of modem used by the calling device 102. Légaré, col. 4, lines 36-41; col. 5, lines 50-67; col. 10, lines 2-3. Légaré, further, does not disclose performing tests on echo cancellers 118 and 120, as Légaré's method tests and measures network 100. Légaré, col. 4, lines 36-41. Since Légaré's method does not identify the type of test to be performed on an

echo canceller, Légaré does not anticipate claim 20, or claims 13, 40, 41, 47, 55, and 71, and their corresponding dependent claims.

Furthermore, neither Interrante nor Légaré provide any motivation to combine the inventions described therein. The Examiner alleges "[i]t would have been obvious to one skilled in the art at the time of the invention to apply test initialization as taught by Légaré to the method made obvious by Interrante, Fraser and Tendo for the purpose of setting up the desired mode of operation." Office Action, page 3. Even if Légaré method for setting up the desired mode of operation taught identifying the type of test to be performed on an echo canceller, this combination would not have provided motivation for Interrante's control words to identify the type of test to be performed by echo canceller 11 since Interrante's control words do not disclose the ability to implement multiple tests. Interrante, col. 3, lines 11-13, 31-33, and 63-66. In other words, since Interrante's control words only specify the timeslots when test data enters or exits an echo canceller, and not the type of test to be performed therein, the addition of Légaré's mode of operation would not provide a motivation for control words to identify the type of test. Thus combining the references, as the Examiner suggests, is to no avail. Applicant therefore respectfully requests that this rejection be withdrawn and the pending claims be allowed to issue.
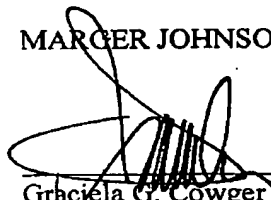
CONCLUSION

The Applicant requests allowance of all claims as amended. The Applicant encourages the Examiner to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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